

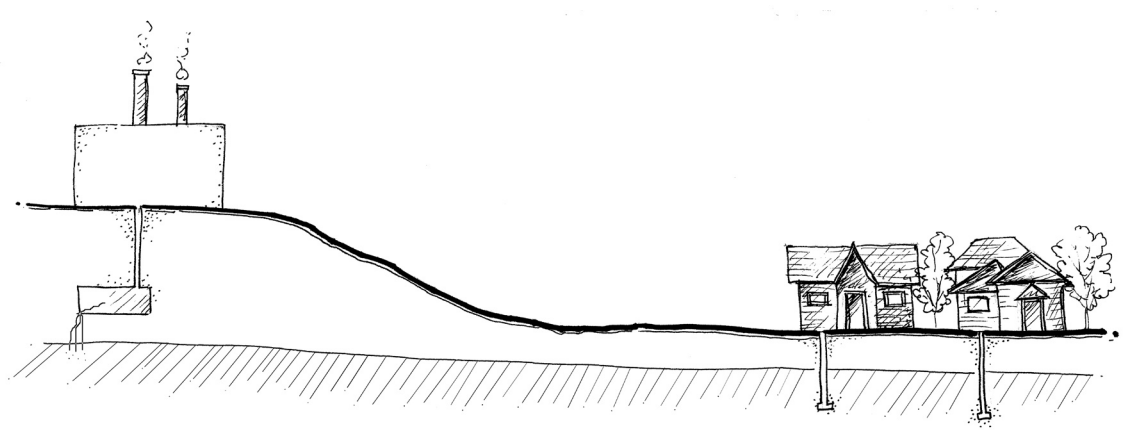
groundwater

Groundwater is the water below the earth's surface. More specifically, it is the water from rain and snow melt that is found underground in the spaces and cracks in soil, rock, and sands. Groundwater is stored in aquifers, or underground geologic formations of rock, sand, soil, or gravel. It comes to the surface naturally through springs, or is released into lakes and streams. It may also be extracted through wells drilled into the aquifer (The Groundwater Foundation 13 Dec. 2004).

Almost every square inch of North America has groundwater beneath it. Groundwater is used for irrigation, recreation, industry, and of course most importantly, drinking water. In fact, groundwater accounts for 50% of the drinking water in the United States (Schwalbaum 1997). Most groundwater, however, is used for irrigation. As the need for groundwater increases with population growth, so does the potential threat of contamination.

Groundwater is vulnerable to contamination. This contamination occurs when pollutants seep into the groundwater. Sources of contamination include landfills, hazardous waste sites, leaking storage tanks containing gasoline, oil or other chemicals, road salts, insecticides and pesticides from lawns and farms, and septic systems. Drinking contaminated groundwater can be harmful. Wildlife can also be adversely affected by polluted groundwater. Restoring contaminated groundwater is not only time consuming, but costly as well. It often costs millions of dollars to remove contaminants from the water to make it drinkable. This cleanup can double or triple the cost of water. Preventing contamination is the best practice (The Groundwater Foundation 13 Dec. 2004).

Communities can help prevent groundwater contamination by making sure septic systems are properly sited and constructed, regulating development in groundwater recharge areas, reducing the amount of paved surfaces, removing leaking tanks, and educating the public about the proper way to dispose of oil and other chemicals.



Contaminated groundwater from industry, or other sources, is harmful to drink and costly to clean up.

references and further reading:

Schwalbaum, Jesse W. Understanding Groundwater. Commack, New York: Nova Science Publishing, Inc. 1997.

The Environmental Protection Agency. Groundwater. 13 Dec. 2004. <<http://www.epa.gov/ebtpages/wategroundwater.html>>.

The Groundwater Foundation. 15 Oct. 2003. What is Groundwater? 13 Dec. 2004. <<http://www.groundwaterfoundation.org/gi/whatisgw.html>>.